At page 8, line 7, please delete "pins" and insert –locations–;

line 8, please delete "pins" and insert –locations–;

line 18, please delete "pins" and insert –locations– at both occurrences; and

line 20, after "layer.", please insert – Figure 4 illustrates a circuit board 52 coupled to a socket module 50 which is connected at load locations 20 to the powerplane 40. –

IN THE CLAIMS:

For the convenience of the Examiner and Applicants, all claims and any amendments are presented herein. Claims 2, 4-8, and 11 have been amended. Claim 14 has been added.

1. (Unchanged) A powerplane for use in a backplane power distribution system, comprising:

(a) a conductive sheet;

(b) at least one source location on said conductive sheet for coupling to a power source;

(c) a plurality of load locations on said conductive sheet for coupling to at least one load;

(d) a plurality of variable resistances between said at least one source location and said plurality of load locations to distribute substantially the same amount of current from said at least one source location to each of said plurality of load locations.

2. (Amended) A powerplane according to claim 1, wherein said [backplane] powerplane includes a plurality of load pins and [a plurality of source pins] at least one source pin and wherein said at least one source location and said plurality of load locations comprise vias for receiving a corresponding one of said [source pins] at least one source pin and said load pins, at least a portion of said vias having plated perimeters for electrically connecting said powerplane to said load pins and source pins.

3.(Unchanged) A powerplane according to claim 1, wherein said conductive sheet comprises copper.

4.(Amended) A backplane power distribution system for distributing power from a power source, comprising:

a laminate having

a plurality of interleaved dielectric layers and conductive layers wherein at least one of said conductive layers is [used as] a powerplane for distributing said power; and

a plurality of source locations and load locations, said source locations being provided to couple said powerplane to said power source and said load [pins] locations being provided to couple said powerplane to at least one load,

a plurality of variable resistances arranged on said powerplane to distribute current so the voltage difference between said load locations is reduced to near zero.

5.(Amended) A backplane power distribution system according to claim [11]4, wherein said source locations and said load locations define a plurality of holes passing through said laminate, said holes forming vias in each of said layers of said laminate, said vias being adapted to couple said [backplane] powerplane to said loads and said power source.

6.(Amended) A backplane power distribution system according to claim [14]5, wherein said laminate further includes source pins and load pins, and wherein a first number of said vias in at least one of said conductive layers are provided with plated perimeters for connection to said load pins and said source pins and a second number of said vias in said at least one of said conductive layer are provided with an insulated perimeter for insulating said second number of vias from said load pins and source pins.

7.(Amended) A backplane power distribution system according to claim [11]4, wherein said conductive layers comprise copper.

8.(Amended) A backplane power distribution system according to claim [11]4, wherein said load locations are provided to couple said powerplane to at least one circuit board.

9.(Unchanged) A powerplane for use in a backplane power distribution system, comprising:

(a) a conductive sheet;

(b) means to couple a power source to said conductive sheet;

(c) means to couple at least one load to said conductive sheet;

(d) means to distribute substantially the same amount of current from said power source to all of said at least one load.

10.(Unchanged) The powerplane of Claim 9, wherein said conductive sheet is copper.

11.(Amended) The powerplane of Claim 9, wherein said means to couple said power source and said means to couple said at least one load to said conductive sheet are selected from the group comprising: connector straps, pads, and vias which receive a plurality of source pins and a plurality of load pins[, respectively].

12.(Unchanged) The powerplane of Claim 9, wherein said means to distribute substantially the same amount of current further comprises a plurality of resistance variations in the structure of the powerplane.

13.(Amended) The powerplane of Claim 11, wherein

said plurality of load [pins] locations further comprises near load [pins] locations and distant load [pins] locations with said near load [pins] locations being nearer to said plurality of source [pins] locations than said distant load [pins] locations, and

wherein said means to distribute substantially the same amount of current further comprises:

means to variably increase the resistance of the powerplane between said plurality of source [pins] locations and said load [pins] locations, and

means to substantially reduce the voltage difference between said near load [pins] locations and said distant load [pins] locations.